SUBJECT INDEX

Acetylcholinesterase
Axon
Fatty acids, 683
Rat, 683
Adenosine 2′,3′-cyclic nucleotide
3′-phosphohydrolase
Spinal cord
Myelin, 232
Rat, 232
Alcoholic neuropathy
see Neuropathy
Alzheimer's disease
Amyloid fibrils
Brain, human, 621
Paired helical filaments, 621
Tilt-stage electron microscopy 621
X-ray diffraction, 621
Amygdala
Dipiperidinoethane
Rat, 56
Symmetrical necrosis, 56
Amyloid fibrils
Alzheimer's disease
Brain, human, 621
Paired helical filaments, 621
Tilt-stage electron microscopy, 621
X-ray diffraction, 621
Amyotropic lateral sclerosis
Axon
β,β′-Iminodipropionitrile, 42
Rat, 42
Slow axonal transport, 42
Antibodies
Virus, vesicular stomatitis
African green monkey kidney cells (Vero), 507
Electron microscopy, 507
Immunolabeling, 507
Mouse embryo neuron culture, 507
Astrocyte
Cerebral edema
Blood-brain barrier, 296
Electron microscopy, 296
Human biopsy material, 296
Freeze-fracture
Mouse, Jimpy mutant, 215
Kainic acid
Local/distant degeneration, 245
Rat, 245
Striatum, 245
Medulloblastoma
Electron microscopy, 30
Human surgical material, 30
Neuroectodermal cell, 30
Tissue culture, 30

Astrocyte (cont'd)
Spinal cord
Electron microscopy, 452
Gentamicin sulfate, 452
Rabbit, 452

Astrocytoma
Glycoproteins
Human brain antigen NSA3, 88
Immunohistofluorescence, 88
Mucopolysaccharides
Human autopsy/surgical material, 1
Serial transplants *in vitro*
Morphology/ultrastructure, 639
Rat, 639
Virus, subacute sclerosing panencephalitis
Cell culture, 131
Electron microscopy, 131
Human surgical material, 131
Nucleocapsid virus marker, 131
Virus, Edmonston measles, 131

Axon
Cerebrum
Carbon monoxide, 197
Cat, 197
Electron microscopy, 197
Leucoencephalopathy, 197
Charcot-Marie-Tooth disease
Human biopsy/autopsy material 420
Conduction velocity
Diabetes mellitus, 710
Degeneration argyrophilia
Cerebral contusion, 555
Cerebral infarction, 555
Human autopsy material, 555
Light/electron microscopy, 555
Reduced silver impregnation method 555
Diabetes mellitus
Streptozotocin, 710
Fatty acids
Acetylcholinesterase, 683
Dopamine-beta-hydroxylase, 683
Rat, 683
Freeze-fracture
Mouse, Jimpy mutant, 215
Malabsorption syndromes
Gracile nucleus, 584
Vitamin E, 584
Myelin
Human surgical/autopsy material 403
Real/artifactual, 403
Schmidt-Lanterman clefts, 403

Axon (cont'd)
Neurofilament
β,β'-Iminodipropionitrile, 42
Rat, 42
Slow axonal transport, 42
Virus, human polio
Age-dependent paralysis, 149
Fast axonal transport, 149
Mouse, 149

Biliary atresia, congenital
Vitamin E
Axonal dystrophy, 584
Gracile nucleus, 584

Blood brain barrier
Cerebral edema
Capillary wall, 296
Electron microscopy, 296
Human biopsy material, 296
Insulin
Hypoglycemia, 265
Vascular permeability, mouse 265

Blood nerve barrier
Lead
Epineurial capillaries, 700
Horseradish peroxidase, 700
Myelination, 700
Rat, 700

Brain
Eosinophilic/argyrophilic spheroids
Electron microscopy, 181
Monkey, 181
Iron pigment
Monkey, 181
Melanin
Human autopsy material, 598
Mucopolysaccharides
Human autopsy material, 13
Human autopsy/surgical material 1
Microdensitometer comparison 1
Myelin, 13
Sulfatides
Myelination, 676
Organ culture, 676
Water, extracellular
Human autopsy material, 13
Myelin, 13

Capillary wall
Cerebral edema
Blood-brain barrier, 296
Electron microscopy, 296
Human biopsy material, 296

Carbon monoxide
Leucoencephalopathy
Cat, 197
Electron microscopy, 197

Cerebellum
Purkinje cell
Electron microscopy, 541
External germinal layer, 541
Methylazoxymethanol, 541
Mouse, 541

Cerebral contusion
Degeneration argyrophilia
Human autopsy material, 555
Light/electron microscopy, 555
Reduced silver impregnation method 555

Cerebral edema
Capillary wall
Blood-brain barrier, 296
Electron microscopy, 296
Human biopsy material, 296
Mucopolysaccharides
Human autopsy material, 13
Myelin
Human autopsy material, 13

Cerebral infarction
see also Stroke
Degeneration argyrophilia
Human autopsy material, 555
Light/electron microscopy, 555
Reduced silver impregnation method 555

Cerebroside sulfotransferase
Myelination
Chick embryo, 549
Optic pathway, 549
Somatofugal activation, 549
Sulfatides
Brain, 676
Organ culture, 676

Cerebrospinal fluid
Meningitis
Epidermoid cyst, 661
Light/electron microscopy, 661

Cerebrum
Horseradish peroxidase
Vascular permeability, mouse 265
Insulin
Hypoglycemia, 265
Vascular permeability, mouse 265
Myelin
Cat, 197
Electron microscopy, 197

Charcot-Marie-Tooth disease
Sural nerves
Electron microscopy, 420
Human biopsy/autopsy material 420

Chloroquine
Muscle, skeletal
Early degenerative changes, 65
Rat, 65

Chlorphentermine
Muscle, skeletal
Early degenerative changes, 65
Rat, 65
Chondrosarcoma
Case report
Histology, 329
Claustrum
Dipiperidinoethane
Rat, 56
Symmetrical necrosis, 56
Complement
Myasthenia gravis
Electron microscopy, 160
Human biopsy material, 160
Motor end-plate, 160
Rabbit anti-human C-9 serum, 160
Conduction velocity
Diabetes mellitus
Axon, 710
Rat, 710
Streptozotocin, 710
Cyclophosphamide
Virus, human polio
Immune response, 138
Mouse, 138
Cystic fibrosis
Vitamin E
Axonal dystrophy, 584
Gracile nucleus, 584
Degeneration argyrophilia
Cerebral contusion
Human autopsy material, 555
Light/electron microscopy, 555
Reduced silver impregnation method 555
Cerebral infarction
Human autopsy material, 555
Light/electron microscopy, 555
Reduced silver impregnation method 555
Degenerative neuropathy
see Neuropathy
Diabetes mellitus
Conduction velocity
Axon, 710
Rat, 710
Interstitial hyperosmolality
Light microscopic morphometry 285
Streptozotocin
Axon, 710
Conduction velocity, 710
Rat, 710
Dipiperidinoethane
Symmetrical necrosis
Anoxia, 56
Chemical structure specificity, 56
Rat, 56
Dopamine-beta-hydroxylase
Axon
Fatty acids, 683
Rat, 683
Duchenne muscular dystrophy
see Muscular dystrophy
Encephalomyelitis
Water, extracellular
Human autopsy material, 13
Mucopolysaccharides, 13
Endoneurium
Lead
Myelination, 692
Rat, 692
Endothelial cell
Cerebral edema
Blood-brain barrier, 296
Electron microscopy, 296
Human biopsy material, 296
Epidermoid cyst
Meningitis
Cerebrospinal fluid, 661
Light/electron microscopy, 661
Fatty acids
Axon
Rat, 683
Myelin
Sural nerves, 683
Ganglia
Neuropathy
Myelination, 632
Garamycin
see Gentamicin sulfate
Genetics
Neuropathy
Myelination, 670
Gentamicin sulfate
Spinal cord
Electron microscopy, 452
Rabbit, 452
Glial cell
Ionizing radiation
Prenatal exposure, 523
Squirrel monkeys, 523
Myelin
Freeze-fracture, 215
Mouse, Jimpy mutant, 215
Optic nerve, 215
Gliosarcoma
see Sarcoglioma
Glycoproteins
Meningioma
Electron microscopy, 575
Histochemistry, 575
Intracellular inclusions, 575
Meningothelial cell, 575

Gracile nucleus
Malabsorption syndromes
Axonal dystrophy, 584
Vitamin E, 584
Granule cell
Cerebellum
Electron microscopy, 541
External germinal layer, 541
Mouse, 541
Grinker's leucoencephalopathy
see Leucoencephalopathy

Hallervorden-Spatz disease
Brain
Monkey, 181

Hereditary sensory neuropathy
see Neuropathy

Hippocampus
Ionizing radiation
Prenatal exposure, 523
Squirrel monkeys, 523
Horseradish peroxidase
Cerebrum
Vascular permeability, mouse 265
Insulin
Blood-brain barrier, 265
Hypoglycemia, 265
Lead
Blood nerve barrier, 700
Hurler's syndrome
Neuron
Human autopsy material, 441
3-Hydroxy-3-methylglutaroyl CoA reductase
Sulfatides
Brain, 676
Organ culture, 676
Hypoglycemia
Insulin
Blood-brain barrier, 265
Horseradish peroxidase, 265
Vascular permeability, mouse 265

IDPN
see β,β′-Iminodipropionitrile
β,β-Iminodipropionitrile
Axon
Neurofilament, 42
Rat, 42
Slow axonal transport, 42
Immune response
Virus, human polio
Mouse, 138
Inferior olive
Lipofuscin
Human autopsy material, 598
Interference filter method, 598
Microfluorometry, 598

Insulin
Hypoglycemia
Blood-brain barrier, 265
Horseradish peroxidase, 265
Vascular permeability, mouse 265
Ionizing radiation
Hippocampus
Prenatal exposure, 523
Squirrel monkeys, 523
Visual cortex
Prenatal exposure, 523
Squirrel monkeys, 523
Iron pigment
Brain
Monkey, 181
Landry-Guillain-Barry syndrome
Neuropathy
Ganglia, 632
Myelination, 632
Tissue culture, rat, 632
Lead
Blood nerve barrier
Epineurial capillaries, 700
Horseradish peroxidase, 700
Myelination, 700
Rat, 700
Myelination
Endoneurium, 692
Rat, 692
Leucoencephalopathy
Carbon monoxide
Cat, 197
Electron microscopy, 197
Malabsorption syndromes
Vitamin E
Axonal dystrophy, 584
Gracile nucleus, 584

Mannosidosis
Neuron
Human autopsy material, 441

Medulloblastoma
Astrocyte
Electron microscopy, 30
Human surgical material, 30
Neuroectodermal cell, 30
Tissue culture, 30

Melanin
see Neuromelanin

Meningioma
Glycoproteins
Electron microscopy, 575
Histochemistry, 575
Human brain antigen NSA3, 88
Immunohistofluorescence, 88
Intracellular inclusions, 575
Meningothelial cell, 575

Meningitis
Epidermoid cyst
Cerebrospinal fluid, 661
Light/electron microscopy, 661
Methylazoxymethanol
Cerebellum
Purkinje cell, 541
Meynert cell
Ionizing radiation
Prenatal exposure, 523
Squirrel monkeys, 523
Mollaret's meningitis
see Meningitis
Morphometry
Myelin
Myelinated fiber profile, 409
Operator *vs* automatic sizing system, 409
Motor end-plate
Myasthenia gravis
Complement, 160
Electron microscopy, 160
Human biopsy material, 160
Rabbit anti-human C-9 serum, 160
Ontogenesis
Electron microscopy, 606
Human fetus autopsy material 606
Quadriceps femoris, 606
Mucopolysaccharides
Brain
Human autopsy material, 13
Human autopsy/surgical material 1
Microdensitometer comparison, 1
Myelin, 13
Mucoviscidosis
see Cystic fibrosis
Muscle, skeletal
Chloroquine
Early degenerative changes, 65
Rat, 65
Chlorphentermine
Early degenerative changes, 65
Rat, 65
Myasthenia gravis
Complement, 160
Electron microscopy, 160
Human biopsy material, 160
Rabbit anti-human C-9 serum, 160
Myogenesis
Cell culture, 173
Electron microscopy, 476
Hamster, 173
Human fetal autopsy material, 476
Morphology, 173
Muscular dystrophy
Early degenerative changes
Rat, 65
Myasthenia gravis
Complement
Electron microscopy, 160
Human biopsy material, 160
Motor end-plate, 160
Rabbit anti-human C-9 serum, 160
Myelin
Axon
Human surgical/autopsy material 403
Real/artifactual, 403
Schmidt-Lanterman clefts, 403
Brain
Mucopolysaccharides, 13
Water, extracellular, 13
Cerebrum
Cat, 197
Electron microscopy, 197
Charcot-Marie-Tooth disease
Human biopsy/autopsy material 420
Fatty acids
Sural nerves, 683
Glial cell
Freeze-fracture, 215
Mouse, Jimpy mutant, 215
Optic nerve, 215
Morphometry
Myelinated fiber profile, 409
Operator *vs* automatic sizing system, 409
Spinal cord
Adenosine 2',3'-cyclic nucleotide 3'-phosphohydrolase, 232
Electron microscopy, 452
Gentamicin sulfate, 452
Rabbit, 452
Rat, 232
Trauma, 232
Sural nerves
Light microscopic morphometry 285
Myelination
Cerebroside sulfotransferase
Chick embryo, 549
Optic pathway, 549
Somatofugal activation, 549
Genetics
Neuropathy, 670
Lead
Blood nerve barrier, 700
Endoneurium, 692
Rat, 692, 700
Neuropathy
Ganglia, 632
Human serum, 632
Landry-Guillain-Barry syndrome 632
Tissue culture, rat, 632
Sulfatides
Brain, 676

Myelination
Sulfatides (cont'd)
Mouse, Jimpy mutant, 676
Organ culture, 676
Sural nerves
Neuropathy, 670
Myoblast
Muscle, skeletal
Electron microscopy, 476
Human fetal autopsy material 476
Myogenesis, 476
Myogenesis
Muscle, skeletal
Cell culture, 173
Electron microscopy, 476
Hamster, 173
Human fetal autopsy material 476
Morphology, 173
Myotube
Muscle, skeletal
Electron microscopy, 476
Human fetal autopsy material 476
Myogenesis, 476
Nervous system tumors
Serial transplants *in vitro*
Morphology/ultrastructure, 639
Rat, 639
Neurinoma
Serial transplants *in vitro*
Morphology/ultrastructure, 639
Rat, 639
Neuroblastoma
Serial transplants *in vitro*
Morphology/ultrastructure, 639
Rat, 639
Neuroectodermal cell
Medulloblastoma
Astrocyte, 30
Electron microscopy, 30
Human surgical material, 30
Tissue culture, 30
Neurofilament
Amyloid fibrils
Alzheimer's disease, 621
Tilt-stage electron microscopy 621
X-ray diffraction, 621
Axon
β,β'-Iminodipropionitrile, 42
Rat, 42
Slow axonal transport, 42
Neuromelanin
Substantia nigra
Human autopsy material, 598
Interference filter method, 598
Microfluorometry, 598
Neuron
Hurler's syndrome
Human autopsy material, 441
Kainic acid
Local/distant degeneration, 245
Rat, 245
Striatum, 245
Mannosidosis
Human autopsy material, 441
Werdnig-Hoffmann disease
Human autopsy material, 441
Neuronal intranuclear hyaline inclusions
Neuropathy
Case report, 107
Diagnosis, 107
Neuropathy
Charcot-Marie-Tooth disease
Electron microscopy, 420
Myelin, 420
Genetics
Myelination, 670
Myelination
Ganglia, 632
Human serum, 632
Landry-Guillain-Barry syndrome 632
Tissue culture, rat, 632
Neuronal intranuclear hyaline inclusions
Case report, 107
Diagnosis, 107
Sural nerves
Morphology, 670
Myelination, 670
Occipital cortex
see Visual cortex
Oligodendrocyte
Freeze-fracture
Mouse, Jimpy mutant, 215
Spinal cord
Electron microscopy, 452
Gentamicin sulfate, 452
Rabbit, 452
Oligodendroglioma
Glycoproteins
Human brain antigen NSA3, 88
Immunohistofluorescence, 88
Ontogenesis
Motor end-plate
Electron microscopy, 606
Human fetus autopsy material 606
Quadriceps femoris, 606
Visual cortex
Camera lucida comparison, 487
Golgi staining method, 487
Onuf's nucleus
Neuron
Human autopsy material, 441
Mannosidosis, 441

Optic nerve
Myelin
Freeze-fracture, 215
Glial cell, 215
Mouse, Jimpy mutant, 215

Optic pathway
Myelination
Cerebroside sulfotransferase 549
Chick embryo, 549

Phospholipids
Fatty acids
Myelin, 683
Rat, 683
Sural nerves, 683

Piperidine derivatives
Symmetrical necrosis
Anoxia, 56
Chemical structure specificity, 56
Rat, 56

Proteinase
Spinal cord
Rat, 232
Trauma, 232

Purkinje cell
Cerebellum
Electron microscopy, 541
External germinal layer, 541
Methylazoxymethanol, 541
Mouse, 541

Pyriform cortex
Dipiperidinoethane
Rat, 56
Symmetrical necrosis, 56

Rhabdovirus
see Virus, vesicular stomatitis

Sarcoglioma
Case report
Histology, 329

Schmidt-Lanterman clefts
Myelin
Axon, 403
Human surgical/autopsy material 403

Schwann cell
Charcot-Marie-Tooth disease
Human biopsy/autopsy material 420
Lead
Rat, 692

Senile plaques
Alzheimer's disease
Amyloid fibrils, 621
Tilt-stage electron microscopy 621
X-ray diffraction, 621

Spinal cord
Gentamicin sulfate
Electron microscopy, 452
Rabbit, 452
Myelin
Adenosine 2′,3′-cyclic nucleotide 3′-phosphohydrolase, 232
Rat, 232
Trauma, 232

Streptozotocin
Diabetes mellitus
Axon, 710
Conduction velocity, 710
Rat, 710

Striatum
Neuron
Local/distant degeneration, 245
Rat, 245

Stroke
Embolic stroke procedure
Guinea pig, 82
Sephadex microspheres, 82

Substantia nigra
Neuromelanin
Human autopsy material, 598
Interference filter method, 598
Microfluorometry, 598

Sulfatides
Cerebroside sulfotransferase
Chick embryo, 549
Optic pathway, 549
Somatofugal activation, 549
Myelination
Brain, 676
Mouse, Jimpy mutant, 676
Organ culture, 676

Sural nerves
Charcot-Marie-Tooth disease
Electron microscopy, 420
Human biopsy/autopsy material 420
Fatty acids
Myelin, 683
Interstitial hyperosmolality
Light microscopic morphometry 285
Myelin
Light microscopic morphometry 285
Neuropathy
Morphology, 670
Myelination, 670

Symmetrical necrosis
Dipiperidinoethane
Anoxia, 56
Chemical structure specificity 56
Rat, 56

Symmetrical necrosis (cont'd)
Piperidine derivatives
Anoxia, 56
Chemical structure specificity 56
Rat, 56
α-Tocopherol
see Vitamin E
Trauma
Myelin
Spinal cord, 232
Spinal cord
Rat, 232
Virus, Edmonston measles
Astrocytoma
Cell culture, 131
Electron microscopy, 131
Virus, human polio
Axon
Age-dependent paralysis, 149
Fast axonal transport, 149
Mouse, 149
Immune response
Mouse, 138
Virus, subacute sclerosing panencephalitis
Astrocytoma
Cell culture, 131
Electron microscopy, 131
Nucleocapsid virus marker, 131
Virus, vesicular stomatitis
Antibodies
African green monkey kidney cells (Vero), 507
Virus, vesicular stomatitis
Antibodies (cont'd)
Electron microscopy, 507
Immunolabeling, 507
Mouse embryo neuron culture, 507
Visual cortex
Ionizing radiation
Prenatal exposure, 523
Squirrel monkeys, 523
Ontogenesis
Camera lucida comparison, 487
Golgi staining method, 487
Vitamin A
Malabsorption syndromes
Axonal dystrophy, 584
Vitamin E
Biliary atresia, congenital
Axonal dystrophy, 584
Cystic fibrosis
Axonal dystrophy, 584
Water, extracellular
Brain
Human autopsy material, 13
Myelin, 13
Werdnig-Hoffmann disease
Neuron
Human autopsy material, 441
White/gray matter
Mucopolysaccharides
Human autopsy/surgical material, 1

Contents of Volume XXXIX

NUMBER 1, JANUARY, 1980

The Mucopolysaccharides of the Ground Substance of the Human Brain. I. FEIGIN, M.D., *New York, New York* 1

The Influence of the Ground Substance on the Extracellular Water of Normal and Edematous Human Brain: Focal Edema and the Demyelinating Diseases, Including Multiple Sclerosis. I. FEIGIN, M.D. AND G. N. BUDZILOVICH, M.D., *New York, New York* 13

Ultrastructural Study of the Medulloblastoma in Tissue Culture. W. R. MARKESBERY, M.D., J. W. WALSH, PH.D., AND B. S. FRYE, M.D., *Lexington, Kentucky* 30

The Axonal Pathology in Chronic IDPN Intoxication. A. W. CLARK, M.D., J. W. GRIFFIN, M.D., AND D. L. PRICE, M.D., *Baltimore, Maryland* ... 42

Lesions of Amygdala, Pyriform Cortex and Other Brain Structures due to Dipiperidinoethane Intoxication. S. LEVINE, M.D. AND R. SOWINSKI, M.S., *Valhalla, New York* 56

The Early Changes in Experimental Myopathy Induced by Chloroquine and Chlorphentermine. H. SCHMALBRUCH, M.D., *Copenhagen, Denmark* 65

Experimental Embolic Stroke in the Guinea Pig (*Cuvis Cobaya*). D. HEFFEZ, M.D. AND W. SHEREMATA, M.D., *Miami, Florida* 82

Brain Glycoprotein in Tumours of the Nervous System. N. GIRARD, M.SC., J. TAYOT, M.D., B. DELPECH, M.D., A. DELPECH, M.D., J. C. CLEMENT, M.D., P. CREISSARD, M.D., AND R. LAUMONIER, M.D., *Rouen, France* 88

Selected Neuropathological Titles 99

Presentation of Awards 102

NUMBER 2, MARCH, 1980

An Unusual Degenerative Disorder of Neurons Associated with a Novel Intranuclear Hyaline Inclusion (Neuronal Intranuclear Hyaline Inclusion Disease). A Clinicopathological Study of a Case. J. H. SUNG, M.D., M. RAMIREZ-LASSEPAS, M.D., A. R. MASTRI, M. D., AND S. M. LARKIN, M.D., *Minneapolis, Minnesota* 107

Differences in Early Ultrastructural Aspects of the Replication of Measles and Subacute Sclerosing Panencephalitis Viruses in a Cell Culture from a Human. H. FLEURY, M.D., W. BONNEZ, M.D., J.-P. POMETAN, PH.D., AND P. DU PASQUIER, M.D., *Bordeaux, France* 131

Pathogenesis of Human Poliovirus Infection in Mice. I. Clinical and Pathological Studies. B. JUBELT, M.D., G. GALLEZ-HAWKINS, M.S., O. NARAYAN, D.V.M., PH.D., AND R. T. JOHNSON, M.D., *Chicago, Illinois and Baltimore, Maryland* 138

Pathogenesis of Human Poliovirus Infection in Mice. II. Age-Dependency of Paralysis. B. JUBELT, M.D., O. NARAYAN, D.V.M., PH.D., AND R. T. JOHNSON, M.D., *Chicago, Illinois and Baltimore, Maryland* 149

Ultrastructural Localization of the Terminal and Lytic Ninth Complement Component (C9) at the Motor End-plate in Myasthenia Gravis. K. SAHASHI, M.D., A. G. ENGEL, M.D., E. H. LAMBERT, M.D., PH.D., AND F. M. HOWARD, JR., M.D., *Rochester, Minnesota* 160

Atypical Myogenesis in Hamster Hereditary Polymyopathy. An in Vitro Study. C. TAUTU, M.D. AND G. JASMIN, M.D., PH.D., *Montreal, Québec, Canada.* 173

Spontaneous Pallido-nigral Accumulation of Iron Pigment and Spheroid-like Structures in Macaque Monkeys. R. T. BRONSON, D.V.M. AND W. C. SCHOENE, M. D., *Southborough and Boston, Massachusetts* 181

Experimental Carbon Monoxide Leucoencephalopathy in the Cat. N. HORITA, M.D., S. ANDO, M.D., S. SEINO, M.D., AND I. HAGIWARA, M.D., *Tokyo, Japan* 197

Selected Neuropathological Titles 212

NUMBER 3, MAY, 1980

Myelin and Glial Membrane Structures in the Optic Nerve of Normal and Jimpy Mouse. A Freeze-etching Study. F. X. OMLIN, PH.D., A. BISCHOFF, M.D., AND H. MOOR, PH.D., *Berne and Zurich, Switzerland* .. 215

The Effects of Spinal Cord Trauma on Myelin. N. L. BANIK, PH.D., J. M. POWERS, M.D., AND E. L. HOGAN, M.D., *Charleston, South Carolina* . 232

Local and Distant Neuronal Degeneration Following Intrastriatal Injection of Kainic Acid. R. ZACZEK, S. SIMONTON, AND J. T. COYLE, M.D., *Baltimore, Maryland* 245

Effects of Insulin-induced Hypoglycemia on Cerebrovascular Permeability to Horseradish Peroxidase. D. W. HSU, M.S. AND E. T. HEDLEY-WHYTE, M.D., *Boston, Massachusetts* 265

Effect of Serum Hyperosmolality on Morphometry of Healthy Human Sural Nerve. P. J. DYCK, M.D., P. A. LOW, M.D., M. F. SPARKS, L. A. HEXUM, AND J. L. KARNES, M. S., *Rochester, Minnesota* 285

Electron Microscopic Study of Capillary Wall in Human Cerebral Edema. O. J. CASTEJÓN, *Zulia, Venezuela* 296

Primary Intracerebral Tumor with Mixed Chondrosarcoma and Glioblastoma—Gliosarcoma or Sarcoglioma? A. V. RICHMAN, M.D., G. A. BALIS, M.D., AND J. E. MANISCALCO, M.D., *Tampa, Florida* 329

ABSTRACTS—56th Annual Meeting of the American Association of Neuropathologists 337

NUMBER 4, JULY, 1980

An Axoplasmic Component of the Schmidt-Lanterman Deformation. I. FEIGIN, M.D. AND G. N. BUDZILOVITCH, M.D., *New York, New York* . 403

Imaging System for Nerve and Fiber Tract Morphometry: Components, Approaches, Performance, and Results. I. R. ZIMMERMAN, M.S.E.E., J. L. KARNES, M.S., P. C. O'BRIEN, PH.D., AND P. J. DYCK, M.D., *Rochester, Minnesota* 409

Charcot-Marie-Tooth Disease Associated with Hypertrophic Neuropathy. A Neuropathologic Study of Two Cases. T. W. SMITH, M.D., J. BHAWAN, M.D., R. B. KELLER, M.D., AND U. DEGIROLAMI, M.D., *Worcester, Massachusetts* 420

Spinal Autonomic Neurons in Werdnig-Hoffmann Disease, Mannosidosis, and Hurler's Syndrome: Distribution of Autonomic Neurons in the Sacral Spinal Cord. J. H. SUNG, M.D. AND A. R. MASTRI, M.D., *Minneapolis, Minnesota* 441

Chemical Study of the Spinal Cord of the Rabbit after Intracisternal Injection of Gentamicin. An Ultrastructural Study. G. R. HODGES, M.D., M.S. AND I. WATANABE, M.D., D.M.SC., *Kansas City, Missouri and Tokyo, Japan* 452

Human Ontogenesis. I. Ultrastructural Characteristics of Developing Human Muscle. A. FIDZIAŃSKA, M.D., *Warsaw, Poland* 476

Morphology of the Developing Visual Cortex of the Human Infant. A Quantitative and Qualitative Golgi Study. S. TAKASHIMA, M.D., F. CHAN, M.S.C., L. E. BECKER, M.D., F.R.C.P., AND D. L. ARMSTRONG, M.D., F.R.C.P., *Toronto, Ontario, Canada and Houston, Texas* 487

Selected Neuropathological Titles 502

NUMBER 5, SEPTEMBER

Antibody-induced Modulation of Rhabdovirus Infection of Neurons in Vitro. M. DUBOIS-DALCQ, M.D., E. L. HOOGHE-PETERS, PH.D., AND R. A. LAZZARINI, PH.D., *Bethesda, Maryland* 507

Effect of Prenatal Ionizing Radiation on the Visual Cortex and Hippocampus of Newborn Squirrel Monkeys. K. R. BRIZZEE, M.D., PH.D., J. M. ORDY, PH.D., M. B. KAACK, PH.D., AND T. BEAVERS, M.A., *Covington, Louisiana* 523

Partial External Germinal Layer Regeneration in the Cerebellum Following Methylazoxymethanol Administration: Effects on Purkinje Cell Dendritic Spines. K. L. LOVELL, PH.D. AND M. Z. JONES, M.D., *East Lansing, Michigan* 541

Progressive Somatofugal Activation of Cerebroside Sulfotransferase in the Developing Chick Optic Fibers. H. P. SIEGRIST, N. HERSCHKOWITZ, AND M. CUENOD, *Berne and Zurich, Switzerland* 549

Successful Silver Impregnation of Degenerating Axons after Long Survivals in the Human Brain. M. R. GRAFE AND C. M. LEONARD, *Gainesville, Florida* 555

Intracellular Inclusions in Meningothelial Meningioma. A Histochemical and Ultrastructural Study. R. L. FONT, M.D. AND J. O. CROXATTO, M.D., *Houston, Texas* 575

Axonal Dystrophy in the Gracile Nucleus in Congenital Biliary Atresia and Cystic Fibrosis (Mucoviscidosis): Beneficial Effect of Vitamin E Therapy. J. H. SUNG, M.D., S. H. PARK, M.D., A. R. MASTRI, M.D., AND W. J. WARWICK, M.D., *Minneapolis, Minnesota* 584

Interference Filter Microfluorometry of Neuromelanin and Lipofuscin in Human Brain. H. BARDEN, PH.D., *New York, New York* 598

Human Ontogenesis. II. Development of the Human Neuromuscular Junction. ANNA FIDZIAŃSKA, M.D., *Warsaw, Poland* 606

Erratum 616

Selected Neuropathological Titles 617

NUMBER 6, NOVEMBER

High-Resolution Electron Microscopic Analysis of the Amyloid Fibril in Alzheimer's Disease. H. K. NARANG, *Newcastle upon Tyne, England* 621

Effects in Vitro of Serum from Patients with Landry-Guillain-Barré Syndrome or Alcoholic Peripheral Neuropathy on Outgrowth of Rat Dorsal Root Ganglia. P. J. ARMATI-GULSON, *Sydney, Australia* 632

Short-term Tissue Culture Observations of Experimental Primary and Transplanted Nervous System Tumors. H. D. MENNEL, *Köln, West Germany* 639

Mollaret's Recurrent Aseptic Meningitis: Relationship to Epidermoid Cysts. Light Microscopic and Ultrastructural Cytological Studies of the Cerebrospinal Fluid. J.-P. DE CHADARÉVIAN, M.D., F.R.C.P.(C), AND W. J. BECKER, M.D., F.R.C.P.(C), *Montreal, Quebec, Canada* 661

Confirmation of Virtual Unmyelinated Fiber Absence in Hereditary Sensory Neuropathy Type IV. H. H. GOEBEL, M.D., STEFAN VEIT, M.D., AND P. J. DYCK, M.D., *Göttingen and Hannover, West Germany and Rochester, Minnesota* 670

Abnormal Metabolism of $^{35}SO_4$-Sulfatide in Jimpy Brains Expressed in Brain Organotypic Cultures. U. N. WIESMANN, T. BURKART, K. HOFMANN, H.-P. SIEGRIST, AND N. HERSCHKOWITZ, *Berne, Switzerland* ... 676

Structural and Biochemical Effects of Essential Fatty Acid Deficiency on Peripheral Nerve. B. A. EVANS, M.D., J. K. YAO, PH.D., R. T. HOLMAN, PH.D., W. S. BRIMIJOIN, PH.D., E. H. LAMBERT, M.D., PH.D., AND P. J. DYCK, M.D., *Rochester and Austin, Minnesota* 683

The Endoneurial Content of Lead Related to the Onset and Severity of Segmental Demyelination. A. J. WINDEBANK, M.R.C.P., J. T. MCCALL, PH.D., H. G. HUNDER, B. A., AND P. J. DYCK, M.D., *Rochester, Minnesota* 692

Blood Nerve Barrier in Rat and Cellular Mechanisms of Lead-induced Segmental Demyelination, P. J. DYCK, M.D., A. J. WINDEBANK, M.D., P. A. LOW, M.D., AND W. J. BAUMANN, PH.D., *Rochester and Austin, Minnesota* 700

Interstitial Hyperosmolarity May Cause Axis Cylinder Shrinkage in Streptozocin Diabetic Nerve. K. SUGIMURA, M.D., A. J. WINDEBANK, M.R.C.P., V. NATARAJAN, PH.D., E. H. LAMBERT, M.D., PH.D., H. H. O. SCHMID, PH.D., AND P. J. DYCK, M.D., *Rochester and Austin, Minnesota* 710

Selected Neuropathological Titles 722

Author Index 726

Subject Index 727

Contents of Volume XXXIX 735